

SCIENCE and INVENTION

Curability of Tuberculosis.

The sanatoria, better than anything else, have demonstrated the absolute curability of tuberculosis, particularly when treated in the early stages, writes Dr. S. A. Knopf in the World's Work. Some of them report as many as 75 per cent of cures, the great majority of which are lasting, as careful inquiry among the discharged patients constantly proves. Even more remarkable results are obtained in the treatment of scrofulous and tuberculous children in special sanatoria located along the seacoast. In Europe, particularly in France, Holland and Germany, there are along the seacoasts numerous splendidly equipped sanatoria for that purpose. In the United States we have thus far virtually none of these class of institutions; I am, however, pleased to state that the New York Society for the Improvement of the Condition of the Poor contemplates establishing such a one.

Arc-Light Distributor.

The operation of the arc light has been lately improved by the use of what is called a distributor, which changes the appearance of the lamp entirely. The use of prisms is now largely resorted to as a means of directing light rays to dark corners and places remote from windows and other sources of illumination. Prisms are made use of in the arc light distributor for the purpose of concentrating the light in certain directions where most desired without completely shutting them off from the other quarters.

The arc light distributor is especial-



ly designed for street illumination and particularly for the intersections of streets. It consists of four panels of plain glass and four prisms, and it will be easily seen from the cuts how these may be arranged to the end that the rays will be more generously directed up and down the streets. The direct rays from the light are allowed to shine through the panels of plain glass and are augmented by the rays diverted by the prisms. In this manner it is said to be possible to illuminate the streets with fewer lights.

Find Gold in Coal Mines.

The latest gold mines are in coal mines, in Africa and America. Gold and silver are present in small quantities in the coal fields of Wyoming. From the occurrence of iron pyrite, which is distributed throughout the coal seam, it is suspected that this mineral carries the precious metals. The coke made from the coal is used in the smelting works at Deadwood, S. D., and averages from one to two pennyweights of gold a ton, which is enough to compensate for high ash content. In South Africa the gold occurred in small seams running through the quartzite ore, and in places was quite rich in gold, the ash being colored a bright purple by the finely divided particles of metal.

FOR EIGHT ROOM COTTAGE.

Design Showing Comfortable and Commodious Residence.

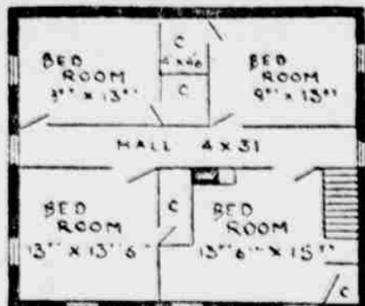
Please publish a plan of an eight-room cottage 28x32 feet, having a bath room on the first floor and a closet off each bedroom.

The accompanying floor plans provide the desired rooms. The ground floor plan provides for parlor, dining room, kitchen, bed room and water



Ground Floor Plan.

closet. If desired a doorway may be made between the kitchen and bedroom. The stairway may go up off the dining room as shown, or off the front hall, if desired. The chimney starts from the cellar floor and may be made to answer for the entire house. The stairway to the cellar is



Upper Floor Plan.

off the kitchen and under the front stairs. The upper-story provides hall, four bedrooms and a closet off each. —H.

Bricks, Etc., for a Cottage.

W. P.—How many bricks would be required for a cottage 22 by 26 feet and 17 feet high, having four doors and nine windows of the usual size? The wall would be of double brick. How many more would be needed if a bay window were built, and what is the usual size for a cottage of the dimensions given? How much run should the stairs have to rise nine feet? How many square feet would be in the roof and how many feet of rafter would be required?

It will require 18,875 bricks for this dwelling. A bay window would cost about \$35, that is, a square one having four windows, one on each end and two in the center. The size of window would be governed by the size of the house, and the room in which it would be placed. Three and one-half by nine feet is a very good size for a window. It would require eight squares of shingles and fourteen sets of rafters, setting them at two feet centers.

Building a Brick Chimney.

C. W. R.—How much lime would be needed to lay up 700 bricks in a chimney, and plaster the chimney on the inside? What are the proportions of lime and sand for a strong mortar? Should the bricks be laid dry or wet?

It would require about two and three-quarters bushels of lime to lay 700 bricks. The usual proportions of lime and sand for 1,000 bricks is from three to four bushels of lime to three-quarters of a yard of sand; some lime will go farther than others. In very warm weather bricks should always be wet before being laid, but in very cool or freezing weather they should be kept dry.

Not in Line.

"How did the election strike you?" "It didn't strike me at all," answered the defeated candidate. "It missed me."—Washington Star.



Safety.

"It will soon be possible," said the chief of police, "for people to go anywhere in the city without fear of crimes or violence."

"Do you speak with knowledge?" asked the fresh reporter.

"Sure I do," replied the chief. "The people are storing their automobiles for the winter."—Cleveland Leader.

Sad Case.

Hostess—My dear count, you must pardon me, but I have such a very poor memory of names. It's a real affliction. I have forgotten yours.

The count—You should consult a specialist on mental diseases, my dear madam, you really should. My name is Kaskawowskischningioski.—New York Weekly.

Evidence.

"But," questioned the conductor, "are you sure it is under 5?"

"Certainly," said the irate mother "it has just written a volume of poetry."

Convinced by this proof, the conductor passed on down the aisle.—New York Sun.

An Awful Mistake.

Wife—"My dressmaker is getting altogether too old-fashioned to suit me."

Husband—"Why, my dear, your new gown is strictly up-to-date."

Wife—"Yes, I know; but she actually sent it home the day she promised it."

Professional Cruelty.

"The trouble," said the dentist, as he probed away at the aching molar with a long, slender instrument, "is evidently due to a dying nerve."

"Well," groaned the victim, "it's up to you to treat the dying with a little more respect."

Strictly Business.

They had accidentally met in a city far from home.

"Are you here on a pleasure trip?" asked the scanty-haired man.

"No," replied the man with the Willie-goat whiskers, "my wife is with me."

Heard at Newport.



Cholly—"Percy Pink is getting more and more effeminate every day."

Hal—"Can it be possible? Does he still slap you on the wrist?"

Cholly—"No, he tries to stick you with a hat-pin."

An Easy One Also.

"He is simply rolling in wealth." "He finds it a rather pleasant role, I presume."

Opposed to Intervention.

"I was watching the bulletins, when my attention was attracted to two youngsters who were squared off at each other in Queensbury style. While I watched they rolled into the gutter, scratching like cats."

"I separated the belligerents. Then they turned on me. 'Hey, mister, what yer doin'?' yelled one. 'Can't two friends fight without somebody buttin' in?' I permitted the fight to go on." —Washington Post.

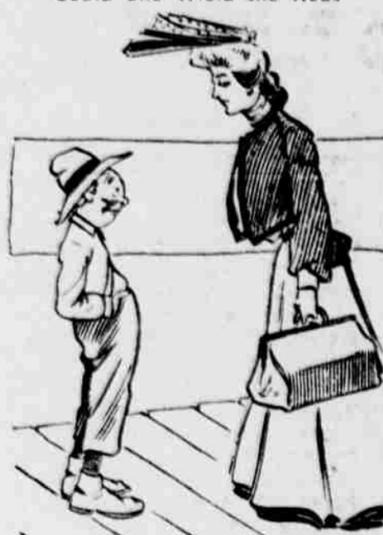
New York Sufficient unto Itself.

Hoffman Howes—Bah Jove, that storm last week was a serious thing for Noo Yawk.

Madison Square—In what way? Hoffman Howes—Why, don't you remembah? It was impossible for Noo Yawk to get news of the outside world, don't ye know.

Madison Square—But, my deah fellah, why should Noo Yawk wish to get news of the outside world?—Louisville Courier-Journal.

Could She Wield the Rod?



Boy—Are you de new schoolteacher, lady?

Lady—Yes. Why?

Boy—Nuttin', only I wanted to see if you was all physical culture or had a good dressmaker.

His Character.

"Do you know Blank?" asked one friend of another, referring to a gentleman famous for his fondness for malt liquor.

"Yes, I know him very well."

"What kind of a man is he?"

"Well, in the morning, when he gets up he is a beer barrel and in the evening, when he goes to bed he is a barrel of beer."

Didn't Stay Long.

"Marse William, said the old family servant, "is you gwine ter make any new resolutions next year?"

"Why, thats looking pretty far ahead; but I guess the old ones will do."

"I dunno bout dat, suh; I hear ole Miss sayin you didnt keep em long enough ter git acquainted wid um!"—Atlanta Constitution.

Quite a Different Matter.

Nell—So she's fallen in love with young Roxley?

Belle—You don't say?

Nell—Why, surely you heard about it?

Belle—No; I merely heard she was going to marry him.

What's the Answer?

Jokely—Here's a conundrum for you.

Cokely—Lets have it.

Jokely—If "time is money" what is an eight-day clock worth.

Auspicious.

Fortune Teller—You will meet a tall dark woman.

Subbubs—Thank heaven! We have been without a cook for six weeks.

An Impression.

"Does your husband play the races?"

"He bets," answered young Mrs. Perkins. "But it doesn't seem like play."